



SPOTTED LANTERNFLY

LYCORMA DELICATULA

Overview

The spotted lanternfly, *Lycorma delicatula*, is a strikingly colored insect native to Southeast Asia where it has never been reported as a pest. In 2006 it was reported in Korea as a pest of fruit crops, particularly grapes. In 2014 it was reported in Pennsylvania and, as of the fall of 2018, has spread to three counties in New Jersey, two counties in New York and one county in Virginia. It is unusual in the distinction that it is one of very few fulgorid insects that is reported to be a pest. This has primarily been an agricultural pest, hitting grapes particularly hard. Feeding damage can cause the vine to die back. It is also reported to feed on a number of trees and causes weeping wounds, but it is not clear yet how this impacts tree health and probably depends on the species.

Hosts

Older nymphs and adults of the spotted lanternfly are attracted to tree of heaven, *Ailanthus altissima*. This exotic invasive tree is filled with toxins that protect the spotted lanternfly from predators. Younger nymphs have a very broad host range, including grapes and a number of fruit tree species and forest species.

Signs/symptoms

This insect is a phloem-feeder, inserting its proboscis into the sap of the host trees. This feeding can result in weeping wounds that may attract ants, bees and wasps. In addition, the insects excrete copious amounts of excess sap to concentrate the nutrients. Sooty mold fungus



Adult spotted lanternflies are about an inch long. (Photo by Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org)



Spotted lanternflies are attracted to tree of heaven. (Photo by Richard Gardner, Bugwood.org)



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grows on these excretions. The spotted lanternfly is very gregarious, helping to spot infestations. The egg masses, usually laid on the bark of tree of heaven, can be laid on any smooth surface, including other smooth-barked species (e.g. maple or beech) or on non-animate objects, like vehicles or railway cars. The eggs are typically covered with a gray putty-like substance that hardens.

Life Cycle

Nymphs hatch from their eggs in early spring. Nymphs cannot fly and crawl to the nearest host. Adults begin to appear in June or July. Adults begin laying their eggs at the end of summer. Adults are poor fliers and move mainly by jumping.

Timeline

Eggs can be found from late summer to early spring. Adults and nymphs are active during the growing season.

Range

The spotted lanternfly is native to Vietnam, India and China, but has spread to Korea, Pennsylvania, New York, New Jersey and Virginia.

Management

Monitor for adults and egg masses on sentinel trees of tree of heaven. Removing most tree of heaven in a clump but leaving one that can be monitored is a good strategy. Egg masses can be manually removed. Because tree of heaven is dioecious (separate male and female trees) and an invasive, remove all female trees to reduce seed production. Sticky material, such as Tanglefoot, can be applied to the bark of the tree to intercept nymphs and adults. Infested trees can be treated with systemic insecticides to kill feeding nymphs and adults.



Spotted lanternfly egg masses are covered with a gray putty-like substance. (Photo by Emelie Swackhamer, Penn State University, Bugwood.org)